

**Notice of Allowability**

Application No.

10/775,129

Examiner

SCOTT A. ZARE

Applicant(s)

SAKAMOTO ET AL.

Art Unit

3687

**- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE (4/22/2009).
2. ☒ The allowed claim(s) is/are 1,3-6 and 8-12.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_.
- Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date \_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 07/20/2009.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_.

/Matthew S Gart/  
Supervisory Patent Examiner, Art Unit 3687

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mark Neblett on 07/20/2009.

The application has been amended as follows:

#### **IN THE CLAIMS**

1. (currently amended) A tag grouping system, comprising:

parameter storage means for storing a parameter which represents a measure of a strength of relationship among a plurality of ID tags;

parameter adjusting means for increasing and decreasing values of the parameter according to a number of pieces of ID information detected simultaneously in the plurality of ID tags by a mobile tag reader; and

judging means for judging a the plurality of ID tags as belonging to a same group according to values of the parameter stored in the parameter storage means;

wherein when ID information is first detected simultaneously in a pair of ID tags, the parameter adjusting means newly sets the parameter for the pair of ID tags to indicate the measure of the strength of relationship between the pair of ID tags, and

when ID information is subsequently detected simultaneously in a the pair of ID tags, the parameter adjusting means increases the value of the parameter stored in the parameter storage means.

2. (cancelled)

3. (previously presented) The tag grouping system according to claim 1, wherein when ID information is detected in a the plurality of ID tags, the parameter adjusting means increases the values of the parameter stored in the parameter storage means.

4. (previously presented) The tag grouping system according to claim 1, wherein if ID information is detected only in one ID tag of a the pair of ID tags which has been registered in the parameter storage means, the parameter adjusting means decreases the parameter value of one of the ID tags of the pair of ID tags.

5. (previously presented) The tag grouping system according to claim 1, wherein when a value of the parameter stored in the parameter storage means becomes zero, the parameter adjusting means clears a parameter setting.

6. (previously presented) The tag grouping system according to claim 1, wherein when a value of the parameter stored in the parameter storage means exceeds

a predetermined threshold, the judging means judges that the plurality of ID tags relevant to the parameter value belong to the same group.

7. (cancelled)

8. (new) A method of tag grouping, comprising:

storing in a parameter storage medium a parameter which represents a measure of a strength of relationship among a plurality of ID tags;

increasing and decreasing values of the parameter according to a number of pieces of ID information detected simultaneously in the plurality of ID tags by a mobile tag reader;

judging the plurality of ID tags as belonging to a same group according to values of the parameter stored in the parameter storage medium;

when ID information is first detected simultaneously in a pair of ID tags, newly setting the parameter for the pair of ID tags to indicate the measure of the strength of relationship between the pair of ID tags; and

when ID information is subsequently detected simultaneously in the pair of ID tags, increasing the value of the parameter stored in the parameter storage medium.

9. (new) The method of tag grouping according to claim 8, wherein when ID information is detected in the plurality of ID tags, increasing the values of the parameter stored in the parameter storage medium.

10. (new) The method of tag grouping according to claim 8, wherein if ID information is detected only in one ID tag of the pair of ID tags which has been registered in the parameter storage medium, the parameter value of one of the ID tags of the pair of ID tags is decreased.

11. (new) The method of tag grouping according to claim 8, wherein when a value of the parameter stored in the parameter storage medium becomes zero, a parameter setting in the parameter adjusting medium is cleared.

12. (new) The method of tag grouping according to claim 8, wherein when a value of the parameter stored in the parameter storage medium exceeds a predetermined threshold, the plurality of ID tags are judged to be relevant to the parameter value belonging to the same group.

### REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance: Independent claims 1 is allowed because the system recites "when ID information is first detected simultaneously in a pair of ID tags, the parameter adjusting means newly sets the parameter for the pair of ID tags to indicate the measure of the strength of relationship between the pair of ID tags" in combination with "when ID information is subsequently detected simultaneously in a pair of ID tags, the parameter adjusting means increases the value of the parameter stored in the parameter storage means." Independent claim 8 recites nearly identical limitations in the form of a method claim. The prior art of record neither anticipates nor fairly and reasonably teaches the system and method for performing such tasks.

The prior art relied on the previous final rejection was *Horwitz et al.* (US 6,496,806). In *Horwitz*, RFID tags are associated with items which have been grouped into clusters. Based on the associations between the items, if a predetermined number of RFID tags belonging to the same cluster are read by the interrogator, the system and method of *Horwitz* presumes all the items in the cluster have entered the area associated with the interrogator. Hence, while *Horwitz* does generally provide a parameter storage means, a parameter adjusting means, and a judging means as recited in the claims, it fails to provide wherein "the parameter adjusting means newly sets the parameter when a pair of ID tags are first simultaneously detected" in combination with "increase[ing] the value of the parameter" when ID information is subsequently detected simultaneously. None of the prior art of record remedies the

deficiencies found in *Horwitz*. The closest foreign reference, Japanese Patent Laid-Open No. 2002-163301, discloses grouping tags which makes it possible to recognize articles which belong to the same user, but similar fail to disclose the preceding distinguishing features of the present invention. Furthermore, a non-patent literature search was performed regarding the distinguishing features but only rendered general information regarding the use of RFID tags in tracking items. See *Shulman, Assignment: RFID apps, Progressive Grocer, December 1, 2002*. No other prior art of record neither anticipates nor fairly and reasonably teaches the system and method for performing such tasks.

### EXAMINER'S COMMENT

It should be noted that claim 1, which is directed toward "a tag grouping system," recites a "parameter storage means," a "parameter adjusting means," and "a judging means." In view of page 7, lines 14-16 of the Specification, this language has been interpreted by the Examiner as properly invoking 112, sixth paragraph. Specifically, in view of the language of lines 14-16 of page 7, in combination with FIGS. 3 and 4, it is evident that the "grouping server 1" is the structural component which is capable of performing each of the functions described in the claim.

This conclusion was reached during an interview conducted with Attorney Mark Neblett in which there was a discussion as to whether the claim language in claim 1 properly invokes 35 USC §112, sixth paragraph. In view of the Specification (pg. 7, lines 3-14), the Examiner noted that the parameter storage database, the parameter adjusting *function*, and the grouping judging *function* were described as performing the functional language which followed the "means for" limitations (e.g., "increasing and decreasing values of the parameter according to a number of pieces of ID information detected simultaneously in the ID tags by a mobile tag reader"). Thus, prior to the interview, the Examiner originally concluded that this language could be broadly interpreted to refer to functions which are software per se, rendering the invocation of 35 USC §112, sixth paragraph improper, as the Specification was found not to provide adequate structure for performing the recited functional language.

However, Attorney Neblett pointed to lines 14-16 of pg. 7 of the Specification, which clarify that the "grouping server 1" is implemented by a program which performs



the operations of Fig. 3 and Fig. 4. Fig. 3 and Fig. 4 illustrate the parameter adjusting function and the grouping judging function, respectively. Thus, during the discussion, Attorney Neblett took the position that lines 14-16 of pg. 7 of the Specification in view of Fig. 3 and Fig. 4 of the Drawings provides an adequate description of the structure (i.e., "grouping server") which performs the functions described following the "means for" language in the claims. The Examiner agreed that in light of the language Attorney Neblett pointed to in the Specification, that it is reasonably clear that the "means for" language properly invokes 35 USC §112, sixth paragraph, and that the Specification describes the "grouping server" as the structure which carries out the functional language that follows each of the "means for" limitations.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Woolley et al., US 5,774,876 (Managing assets with active electronic tags)

Verb et al., US 6,456,239 (Method and apparatus for locating mobile tags)

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SCOTT A. ZARE whose telephone number is (571)270-3266. The examiner can normally be reached on Monday - Friday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Gart can be reached on (571) 272-3955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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